

App. No. 09/736,988
Response Dated: June 26, 2006
Reply to Office Action of April 26, 2006

Amendments to the Claims:

1 (currently amended): A computer-implemented method for automatically tuning a size of a TCP receive window on a receiving computing device, comprising:
determining a bandwidth of a network connection; and
automatically tuning the size of the TCP receive window on the receiving computing device based on the determined bandwidth; wherein the automatically tuning comprises setting the size of the current TCP receive window without manual intervention and without adjusting a packet header of a packet that has been sent by a sending computing device.

2 (previously presented): The method of Claim 1, wherein determining the bandwidth of the network connection, further comprises:
obtaining at least one attribute of a network connection device; and
determining the bandwidth of the network connection from the at least one obtained attribute.

3 (previously presented): The method of Claim 2, wherein automatically tuning the size of the TCP receive window based on the determined bandwidth further comprises:
determining the size of the TCP receive window based on the determined bandwidth; and
setting the size of the TCP receive window to the determined size.

4 (previously presented): The method of Claim 3, wherein determining the size of the TCP receive window based on the determined bandwidth further comprises accessing the size of the TCP receive window from a look-up table, wherein the look-up table includes at least three different sizes from which the size of the TCP receive window is selected.

5 (original): The method of Claim 2, wherein determining the at least one attribute of the network connection device further comprises determining a speed of the network connection device or a name of the network connection device.

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6 (previously presented): The method of Claim 1, further comprising:
monitoring the network connection to determine if the network connection has changed; and
tuning the size of the TCP receive window if the network connection has changed.

7 (currently amended): A computer-readable medium having computer-executable instructions for automatically tuning a size of a TCP receive window on a receiving computing device, comprising:
determining a throughput of a connection; and
tuning the size of the TCP receive window on the receiving computing device based on the determined throughput of the connection by setting the size of the TCP receive window automatically without manual intervention and without modifying a packet header of a packet sent from a sending computing device.

8 (previously presented): The computer-readable medium of Claim 7, further comprising:
monitoring the throughput of the connection to determine if the throughput of the connection has changed; and
automatically tuning the size of the TCP receive window if the throughput of the connection has changed.

9 (previously presented): The computer-readable medium of Claim 8, wherein determining the throughput of the connection, further comprises:
polling a network connection device for at least one attribute; and
receiving the at least one attribute from the network connection device; and
determining the throughput of the connection from the at least one received attribute.

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10 (previously presented): The computer-readable medium of Claim 9, wherein automatically tuning the size of the TCP receive window based on the determined throughput further comprises:

looking up the size of the TCP receive window based on the determined throughput, and
setting the size of the TCP receive window to the looked up size.

11 (currently amended): An apparatus for automatically tuning a size of a receive window, comprising:

a processor and a computer-readable medium;
an operating environment stored on the computer-readable medium and executing on the processor;
a network connection device operating under the control of the operating environment; and
an automatic tuning device operating under the control of the operating environment and operative to perform actions, including:
determining a bandwidth of the network connection; and
setting the size of the receive window based on the determined bandwidth without manual intervention and without modifying a packet header of a packet sent from a sending computing device.

12 (previously presented): The apparatus of Claim 11, wherein determining the bandwidth of the network connection device, further comprises:

obtaining at least one attribute of the network connection device; and
determining the bandwidth of the network connection device from the at least one attribute.

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13 (previously presented): The apparatus of Claim 12, wherein obtaining the at least one attribute of the network connection device further comprises determining a speed of the network connection device or a name of the network connection device.

14 (previously presented): The apparatus of Claim 13, further comprising:
monitoring the network connection device to determine if the network connection device has changed; and
tuning the size of the receive window if the network connection device has changed.

15 (previously presented): The method of Claim 1, wherein automatically tuning the size of the TCP receive window based on the determined bandwidth further comprises determining the size of the TCP receive window from a look-up table based on the determined bandwidth; wherein the look-up table includes at least three different sizes from which the size of the TCP receive window is selected.

16 (previously presented): The method of Claim 1, wherein automatically tuning the size of the TCP receive window based on the determined bandwidth further comprises determining a current operating system and setting the size of the TCP receive window based on the determined bandwidth and the operating system.

17 (previously presented): The method of Claim 2, wherein the at least one attribute is a name of a network connection device.

18 (previously presented): The computer-readable medium of Claim 7, wherein tuning the size of the TCP receive window based on the determined throughput of the connection comprises sizing the TCP receive window based on a type of network connection device.

19 (previously presented): The apparatus of Claim 11, wherein automatically tuning the size of the TCP receive window based on the determined bandwidth further comprises

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determining the size of the TCP receive window by accessing a look-up table based on the determined bandwidth.

20 (previously presented): The apparatus of Claim 11, wherein automatically tuning the size of the TCP receive window based on the determined bandwidth further comprises determining a version of the operating environment executing on the processor and setting the size of the TCP receive window based on the determined bandwidth and the operating environment.